PROPOSED Final Strategy Report

VanSplash: Vancouver Aquatics Strategy

Vancouver Board of Parks and Recreation



ACKNOWLEDGEMENTS

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Executive Summary

In 2016, the Vancouver Board of Parks and Recreation (VPB) initiated a new long range vision for the future of aquatics in Vancouver. The future vision will be informed by a core belief that along with providing opportunities for physical health and well-being, aquatic services play a key role in supporting community and personal well-being, and in enhancing social inclusion.

From beaches to pools, there is a long history of providing aquatic services within the City of Vancouver. The VPB currently operates nine indoor pools, five outdoor pools, 14 spray parks, 15 wading pools, and nearly 18 km of beaches, including Trout Lake swimming beach. In 2012 the VPB developed a Strategic Plan¹ with the mission to "provide, preserve and advocate for parks and recreation to benefit all people, communities and the environment."

The future vision for aquatics developed in the 2017 Vancouver Aquatic Strategy (*VanSplash*) is based upon: an understanding of the current state of existing public aquatic infrastructure (including indoor and outdoor pools, spray parks, wading pools, and beaches); public opinion gathered through a robust public engagement strategy that sought to ascertain the public's hopes and aspirations for the future of aquatics in the city; and looking worldwide for inspiration related to best practices, trends and innovations in aquatics and assessing their applicability to Vancouver's unique physical and social context.

The 2017 Vancouver Aquatics Strategy is intended to update the 2001 Aquatic Services Review and the 2011 Pool Assessment Study (both of which are described in the next section), and to build on the scope of the previous studies by increasing the targets and measures of success to include social inclusion and community well-being, by including considerations related to environmental sustainability, and to expand the range of aquatic amenities within the City as a key component for inclusion in the overall vision and recommendations.

The vision and recommendations in the 2017 *VanSplash* were developed through three phases:

PHASE 1: POLICY REVIEW, INVENTORY, AND CURRENT STATE REPORT

- *Current State Report* (Appendix 3)
- Precedent Report (Appendix 4)
- *Public Engagement Report* (Appendix 5)

PHASE 2: SERVICE LEVELS AND POLICY UPDATE

- Development of draft Recommendations for service delivery and policy
- Additions to Public Engagement Report

PHASE 3: FINAL STRATEGY AND IMPLEMENTATION

• Final Strategy Report

This report represents the final strategy for *VanSplash*, focused on providing the key recommendations for the proposed 25-year vision, with a 10-year phased implementation plan. The recommendations presented in this report are based on detailed work completed in Phases 1 and 2, and include at a high level the overall context and drivers on which the recommendations are based. However, for a fuller picture of the research and knowledge that informed and shaped the recommendations, the *Final Strategy Report* should be read in conjunction with the findings presented in the *VanSplash Current State Report*, the *VanSplash Precedent Report* and the *VanSplash Public Engagement Report*.

The Current State Report focuses on:

- the drivers for aquatic use
- aquatic delivery methods
- the regional aquatic context
- pool capacity and operational strategies future demographic trends

The report also provides an overview and evaluation of each of the Park Board's existing aquatic facilities and amenities, with realistic life cycle assessments for each (where applicable), documents unique features, and their role in service delivery.

The *Precedent Report* provides an overview of recent global aquatic trends, and provides aquatic precedent projects that are considered to be cutting edge in representing a particular trend. Precedents were considered in terms of their appropriateness and applicability to the physical and demographic context of Vancouver, and tested in terms of their ability to further the objectives and goals for the future of aquatics in Vancouver as identified by the VPB and expressed by the public during the two phases of public engagement. Ultimately, each typology was used to inform aquatic innovations that could enhance the range of aquatic experiences offered in Vancouver into the future, and helped to develop the overall 25-Year Vision.

The *Public Engagement Report* provides an overview of the strategy and process for two rounds of public engagement for *VanSplash*, and summarized in detail the feedback and insights provided by the public through outreach. The information gathered in this report summarized what we heard through over 4,500 survey responses and five facilitated focus group workshops in the first phase of engagement, and over 1,600 survey responses in the second. In Phase 1, over 150 interest groups (including user groups, community centres, neighbourhood houses, immigrant services, City of Vancouver advisory committees, LGBTQ2 representatives, diverse advocacy groups, persons with disabilities, and seniors) were invited to attend stakeholder sessions at locations across the City. Over 60 groups were represented as participants at these sessions. The groups and individuals who were invited to attend stakeholder sessions in Phase 1 were all contacted during the second engagement phase, and were asked to share the information with others in their networks. The *Public Engagement Report* contains crucial input and feedback from the public stakeholders that, in conjunction with the *Current State Report* and the *Precedent Report*, shaped and informed the recommendations.

Background

In 2002 the Park Board completed the 2001 *Aquatic Services Review*. The purpose of the review was to develop a comprehensive strategy to reconfigure the Park Board's aquatic services and facilities and to lay a foundation for a 10-15 year revitalization plan. The specific outcome of this work was to provide the Board with recommendations that would enable them to:

- operate the services and facilities in a cost-effective and fiscally sustainable manner
- meet current and future demands of the City's residential and working population
- balance the local neighbourhood services and needs with those of the City and Region as a whole

As a result of the outcomes and recommendations in the 2001 review, in 2002 the Park Board endorsed the objectives for aquatic renewal consisting of:

- One city-wide (Destination) facility (up to 800,000 swims/year)
- Two community level facilities (up to 400,000 swims/year)
- Four neighbourhood level facilities (up to 200,000 swims/year)

Subsequently, the Park Board implemented the first phase of recommendations which included:

- Building a new, city-wide destination aquatic facility at Hillcrest (2010), which replaced the Percy Norman Pool.
- Re-building Killarney pool (2006) to a community-level pool.
- Renovating Renfrew pool (2005), which was maintained as a neighbourhood-level pool.

Since 2001, the Park Board has also:

- Decommissioned two neighbourhood-based outdoor pools (Mount Pleasant and Sunset) at the end of their functional lifespan
- Co-located an outdoor leisure pool at the Hillcrest Aquatic Centre (2010).
- Decommissioned five wading pools (Norquay Park, Prince-Edward Park, Pandora, Carnarvon, and Riley Park) at the end of their functional lifespan.
- Added three new spray parks (Prince Edward Park, Norquay Park and Pandora Park).
- Converted Carnarvon and Riley Park wading pools into lawns.

In 2010, the Park Board engaged HCMA to deliver a *Pool Assessment Study* to provide an update that measured the progress made since the adoption of the 2001 aquatic strategy. The work also considered existing pool use data to lay the groundwork for future aquatic facility renewal in the City of Vancouver. The study was intended to provide a comprehensive picture of the City's current aquatic network, and to identify new trends and issues.

Working closely with aquatics and planning staff, HCMA reviewed relevant documentation, assessed the major indoor and outdoor facilities, assessed wading pools and spray parks and conducted interviews with aquatic staff across all levels. Combining this work with research into aquatic trends and best practices, the *2011 Pool Assessment Study* provided both new findings and recommended updates to the 2001 recommendations to inform the future of aquatics relative to the 10-year plan.

The 2011 study served as a touch point for services review, but did not provide an over arching strategy evaluated through a community engagement process, nor was it endorsed by the VPB as a policy. The scope of work included swim targets for indoor pools only. *VanSplash* works to complement and extend the previous studies by including other aquatic service opportunities such as aquatic services at beaches, innovative approaches for new outdoor facilities such as natural pools or facilities for urban ocean swimming as seen in other marine cities, as well as considering the role of aquatic services in supporting well-being, social inclusion, and broader environmental sustainability targets. This *Final Strategy Report* builds on current technical knowledge and previous reports, incorporates broader City-wide aspirations, and relies upon robust public engagement to inform a new 25-year vision for aquatics in Vancouver.

Objectives + Methodology

OBJECTIVES

The purpose of *VanSplash* was to develop a 25-year vision and implementation plan for aquatic services that:

- Carries out a robust public engagement strategy to inform the vision and recommendations.
- Offers a comprehensive and robust community and stakeholder engagement strategy, which included an online survey.
- Frames aquatic services in the context of supporting community and personal well-being and enhancing social inclusion.
- Reviews the condition, effectiveness and performance of the Vancouver Park Board aquatic services delivery system.
- Considers current aquatic services within a 25-year time frame which accounts for projected population growth and growth centres in the city.
- Validates optimum city-wide service levels and delivery, including metrics that measure effectiveness of service delivery (e.g. swims per capita, number of users, unmet demand).
- Explores and recommends new and innovative directions to meet city-wide indoor and outdoor aquatic services delivery.
- Recommends an outdoor pool strategy, which considers the location and design of a new outdoor pool facility.
- Reviews and recommends the role of wading pools, spray parks and beaches in the aquatic system.
- Matches updated service metric(s) with an implementation plan to renew and invest in the system.
- Incorporates facility performance findings relative to greenhouse gas emissions. This is to more accurately align with City of Vancouver policy targets.¹

Greenest City Action Plan, 2020 Target: reduce community based GHG emissions by 33% from 2007 levels, and 2050 Target: reduce GHG emissions by 80% below 2007 levels.

METHODOLOGY

Phase 1 – 3 work was carried out as follows:

Current State Report (Phase 1)

- Reviewed existing policy and literature provided by Park Board including: previous aquatic service and program reviews, recent facility assessments, aquatic services use numbers (2009-2015), Park Board Strategic Framework, Vancouver Sport Strategy, Healthy City Strategy, and Greenest City Action Plan.
- Reviewed City aquatic facilities including indoor and outdoor pools, whirlpools, representative spray parks and wading pools (2-3) as well as beach and waterfront sites. The team received data on operations, number of visitors, maintenance and energy use for existing pool facilities from VPB staff, with the exception of data for Britannia pool.
- Evaluated results of review and research and provided conclusions and recommendations into the *Current State Report*.

Precedent Review (Phase 1)

- Conducted an overview of relevant global aquatic precedent projects.
- Reviewed recent global aquatic trends.
- Evaluated precedents and rated them in terms of:
 - appropriateness and applicability to the context of Vancouver
 - ability to further the objectives and goals for the future of aquatics in Vancouver as identified by the VPB and expressed by the public during the public outreach component
 - ability to complement and enhance the current and proposed range of aquatic experiences offered in Vancouver

• Evaluated results of the precedent and trend review provided conclusions and recommendations into the *Precedent Review Report*.

Public Engagement (Phase 1)

- Developed *VanSplash*, a branded public engagement strategy that was carried out in two phases. The first was held in the summer of 2016 and included:
 - a public survey completed by over 4,500 respondents, including 60 translated Chinese language responses, that sought broad input to shape and inform the 25-year vision and draft recommendations for service deliver
 - the receipt of 45 comments via e-mail
 - two public outreach events at Kitsilano beach and New Brighton pool over a key summer weekend in July (July 23 and 24th, 2016)
 - Five stakeholder workshops, with 60 stakeholder groups represented, to gather specific feedback on pool usage, to understand the users' likes and dislikes, and perceived barriers related to current aquatic services in Vancouver and the region.
- Evaluated results of the public engagement, and provided a summary of the results in the *Public Engagement Report*.

Development of draft Vision and Recommendations for service delivery (Phase 2)

On the basis of the foundational work carried out in Phase 1, the consultant team began to develop the draft 25-year vision and implementation plan. The team reviewed what was working well in the current system and what was not, both from a technical and operational perspective, as well as on the basis of input and feedback gathered through the engagement. This was considered in the context of anticipated future demographic growth and changes, desired swim capacity targets, and the wider aspirations set out by the VPB and the CoV. The team also developed a Vision statement, and a set of Guiding Principles and Goals to support the Vision, that would be supported directly by the strategic 25-Year recommendations. Refer to page 52 for the Vision, Principles and Goals.

The work in Phase 2 was developed in close and regular contact with the VPB Staff Working Group, and was presented to the Vancouver Park Board Commissioners on June 19, 2017 prior to proceeding to the next and final round of public engagement.

Public Engagement (Phase 2)

- Building on the branding and awareness of *VanSplash* developed in the Phase 1 public engagement, the team conducted a second and final round of public engagement. The second engagement took place in the fall of 2017, to seek feedback on the draft recommendations:
 - a public survey completed by over 1,600 respondents, including 21 translated Chinese language responses, that sought input from the public on the draft 25-year vision and draft recommendations for service delivery
 - the receipt of 142 comments via e-mail
 - three public outreach events held at Killarney, Hillcrest and Vancouver Aquatic Centre indoor pools in September/ October (September 27, September 30 and October 2, 2017)
- Evaluated results of the public engagement and added a summary of the results in the *Public Engagement Report*.

Development of final Vision and Recommendations for service delivery (Phase 3)

Following the tabulation of the final engagement results the consultant team, working closely with the VPB Staff Working group and key members of staff, finalized the proposed Vision and Recommendations for service delivery. This final phase of work includes a high-level cost estimate for recommendations that are proposed as having potential for implementation within the 10-year implementation window.

Throughout all phases of the work, the consultant study team relied on the assistance of many Park Board staff and operators who contributed their time, energy and guidance in the project. In addition to the key dedicated staff and the Staff Working Group, participants included: aquatics and recreation program, operations, maintenance and management staff, and City of Vancouver Facilities Management and Planning, Urban Design and Development staff.



Foundations for Planning Aquatic Services

Introduction 14 Benefits of Aquatic Services 14 Drivers of Aquatic Use 15 Nine Categories of Aquatic Services 17 Three Modes of Pool Operation 17 Three Geographic Levels of Pool Supply 19 Standard Capacity 21 Economics of Pool Operation 22 Summary of Context 23

Introduction

This section presents contextual information from the *Current State Report* outlining and defining the various aspects of aquatic services planning. This information is intended to provide a foundation for viewing and evaluating the current state analysis of aquatic services in Vancouver as well as the impact of the subsequent recommendations. Further detail is found in Appendix 2, 3, and 4.

Benefits of Aquatic Services

Public aquatic facilities can transform and bring together communities they offer opportunities for fitness, a place for community to gather and for families to spend time together; however, public aquatic facilities are among the most expensive facilities that a community can provide for its residents. Almost all communities invest heavily in them because of the tremendous benefits that accrue from their use. These benefits contribute to healthy, active individuals and communities and include:

- Water safety learning how not to drown (one of the most basic of human needs and public services especially for communities close to natural waterways)
- Learning and improving skills in swimming, diving and other water sports
- Fitness and conditioning in a medium that is least likely to result in injury (due to the buoyancy of the water)
- Rehabilitation and therapy services to those with disabilities, injury, or frailty
- Social opportunities in water or on deck that connect people and reduce feelings of isolation

- Family opportunities to come together in a recreational setting conducive to use by all family members
- Mixing segments and subsets of the community with an activity that is worldwide and appeals to people of all ages and abilities
- Leadership training for young people
- Extensive volunteering opportunities
- Special events that rally community identity, spirit, and pride
- Sport tourism opportunities associated with swim meets and other competitive aquatic events (synchronized swimming, diving, water polo, etc)

The incredible range of community and individual opportunities that aquatic amenities offer is the rationale and incentive for the high level of subsidization of public aquatic swimming facilities. The typical recovery rate¹ of capital costs for an indoor pool is between 30% and 70% with the remainder of the operating costs funded through municipal taxes.

Given the increasing understanding of the value and importance of the social aspects of aquatics, when looking at the current facilities and aquatic services in the last section of the *Current State Report*, the team showed quantitative data related to usage numbers but tried to capture more difficult-to-measure targets such as social inclusion, community building, wellness, and sustainability for each facility.

It should also be noted that a large range of the aquatic benefits, including water safety, fitness, social and family opportunities, mixing of diverse members of the community, building community spirit etc can also be gained through the use of beaches. Natural ocean beaches are one of the singular and defining aquatic experiences that distinguish Vancouver from the majority of other urban centres in Canada.

 Recovery rate is the proportion of all operating costs that are recovered from users through user fees. The complement of recovery rate is subsidy rate. They both add to 100%.

Drivers of Aquatic Use

What makes aquatic services so important, and what inspires and guides recommendations around the design of new amenities and the enhancement of existing aquatic opportunities, is related, to a large degree, by reasons why people want to take part in aquatic experiences.

People are motivated to use aquatic services for a wide variety of reasons; however, the industry understands, and current research for this study confirms, that some of the most important drivers for use are as follows, in no particular order:

1. Learning not to Drown

The first steps in learning to swim appear to be the most important. As more and more skill is gained, the numbers involved tend to drop. Swimming is a life skill, so most parents want to ensure that their children learn this skill early in order to be safe around water for the remainder of their lives.

2. Fitness + Wellness

Water buoyancy makes activity in the water an ideal path to gaining fitness and overall feelings of wellness. Therapy aspects of aquatics such as warm water pools, sauna, steam, and therapeutic sprays help to meet this driver, which develops as a driver in early adulthood and becomes more important as adults age.

3. Socialization

This also includes all ages and can be met through a variety of aquatic experiences, but seems to become more important as adulthood progresses. It is a very important driver among seniors.

4. Fun, Relaxation + Diversion

This motive applies to all ages, and can be met by an enormous (and growing!) range of aquatic experiences. This driver may start with preschoolers and focus on children, but is an aspect of swimming and aquatic usage that applies to all ages and all demographics. It can range from quiet contemplation to the spectacle of aquatic activities such as wave riding or high diving/ jumping. It includes the social aspects of play opportunities for tweens, "seeing and being seen", and can be individual or a group social experience. It takes on a multitude of different dimensions and includes such things as "people watching" and just dwelling in a positive environment.

5. Competition/Training

The rigour and structure of training and then testing skill against others (initially in children) and against oneself (especially in adults and seniors) is a strong motivator for many.

6. Other

Others access aquatic services for reasons including: getting a job, recovering from a medical event or illness, and gaining satisfaction from volunteering. All of these motives need to be considered when planning for developing and managing aquatic services in the public sector.

Nine Categories of Aquatic Services

After developing a clear understanding of why people want to take part in aquatic experiences, or the drivers of aquatic use, the next strategic question became: What type of aquatic uses provide an opportunity to meet those drivers?

There are nine categories of aquatic services under which existing services are assessed and future needs determined. Each category represents a certain type of facility/water condition that would be required, and each requires a slightly different configuration of aquatic spaces, water temperature, or operation to deliver the service. Almost all aquatic services and needs can be categorized under the nine headings as listed in Figure 2.

SKILL DEVELOPMENT	FITNESS
 Swim lessons primarily Other skills taught in lesson format 	 Lane swimming Aquasize classes
SPECIAL EVENTS	THERAPY + REHABILITATION
 Swim meets Diving competitions 	 Those who are injured, frail, or have disabilities are active in water because it supports their body weight Either in a program or individual
WATER ORIENTATION	THERMAL RESPITE
Opportunities for young people to gradually get used to being	• Water as a medium to cool off in hot weather
	SKILL DEVELOPMENT Swim lessons primarily Other skills taught in lesson format SPECIAL EVENTS Swim meets Swim meets Diving competitions Diving competitions Swim sets Opiorunities for young people to gradually get used to being

CATEGORIES OF AQUATIC SERVICE	DROP-IN	PROGRAM	RENTAL
RECREATION	\checkmark		\checkmark
SKILL DEVELOPMENT	\checkmark	\checkmark	
FITNESS	\checkmark	\checkmark	
SPORT TRAINING			
COMPETITIONS			
THERAPY + REHABILITATION	\checkmark	\checkmark	\checkmark
LEADERSHIP TRAINING			
WATER ORIENTATION	\checkmark	\checkmark	
THERMAL RESPITE FROM HOT/COLD	✓		

FIGURE 3 : Accommodating categories of aquatic service within 3 modes of operation.

Three Modes of Pool Operation

Lastly, after understanding why people are motivated to experience aquatics, and categorizing what the range of aquatic activities are that meet these motivations, we considered how aquatic amenities could be provided to meet the nine swim categories. For the purposes of this research, aquatics were considered to operate under three modes, as follows:

1. DROP-IN

Where individuals and families decide to visit an aquatic amenity on a case by case basis.

2. PROGRAM

Where users pre-commit, through a registration process, to a series of uses that typically involve some instruction or leadership, and are scheduled at a predetermined time.

3. RENTAL

Where a group rents some aquatic space and then controls the users and uses of that space.

The nine categories of aquatic service are typically accommodated within the three modes of operation (Figure 3). These modes require different kinds of support areas in a pool but can be combined so that more than one occurs in a pool tank at the same time. Understanding the nine categories of aquatic service and how they are met within the three modes of operation was important to the assessment of existing aquatic facilities and in planning for all aquatic amenities and services in Vancouver for the future.

LEVEL	DESCRIPTION + PROVISION STANDARD	PRIMARY AQUATIC SERVICE CATEGORIES DELIVERED			
NEIGHBOURHOOD	Pools with a 25 m six lane tank providing basic aquatic services for a local area of 60,000 to 90,000 residents, with capacity for about 200,000 swims per year.	Skill DevelopmentFitness Swimming			
COMMUNITY	A multi-tank pool with more specialized aquatic services serving one quarter to one half of the City, with capacity for about 400,000 swims per year.	Skill DevelopmentFitness SwimmingTherapy and Rehab			
CITY-WIDE (DESTINATION)	Much more comprehensive multi-tank pools serving all residents of the City, centrally located and easily accessible from all parts of the City, with capacity for about 750,000 to 800,000 swims per year.	 Skill Development Fitness Swimming Therapy and Rehab Recreational Swimming Special Events 			
ALL-INDOOR AMENITIES	The entire inventory of indoor pools should be located such that the vast majority of residents have an indoor pool within about 2-3 km of their residence. (A 3 km radius identifies the area of approximately a 30 minute walk, 15 minute cycle, or 10 minute drive.)				
OUTDOOR AMENITIES	Targets to be established in phase 2 + 3 work.				

FIGURE 4 : Three levels of geographic pool study.

	INDOOR AQUATIC AMENITIES				OUTDOOR AQUATIC AMENITIES			
CATEGORIES OF AQUATIC SERVICE	CITY	COMMUNITY	NEIGHBOURHOOD	OUTDOOR	WADING	SPRAY PARK	BEACHES	
RECREATION + SOCIALIZING	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
2 SKILL DEVELOPMENT	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	
3 FITNESS	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	
4 SPORT TRAINING	\checkmark	\checkmark	\checkmark	\checkmark			\checkmark	
5 SPECIAL EVENTS	\checkmark	\checkmark		\checkmark			\checkmark	
6 THERAPY + REHABILITATION		\checkmark	\checkmark	\checkmark				
7 LEADERSHIP DEVELOPMENT	\checkmark	\checkmark		\checkmark			\checkmark	
8 WATER ORIENTATION	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
9 THERMAL RESPITE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	

FIGURE 5 : Accommodating categories of aquatic service within different types of aquatic amenities

Three Geographic Levels of Pool Supply

In Vancouver, like in many large urban centres, there are multiple aquatic amenities and each specializes in terms of which of the nine categories of aquatic service it is focused on meeting. This strategy to service delivery is further enhanced by an approach based on different pools that operate at different geographic levels, or within different sized markets. In the *2001 Aquatics Review*, three levels of pool supply were formalized and adopted, as summarized in Figure 4. The three levels are categorized as neighbourhood, community and city-wide destination pools. The later phases of this vision strategy will include recommendations and set proposed targets related to the location and frequency of outdoor amenities to complement and support the indoor amenities targets established in 2001.

The nine categories of aquatic service can be met by a range of the levels and types of indoor and outdoor aquatic spaces that exist in Vancouver, but all aquatic amenities don't need to deliver all nine categories. Indeed, a systems approach is required, where specific types of pools and aquatic amenities are positioned to focus primarily on specific categories of aquatic service so that all categories can be optimally served.

Figure 5 summarizes the relationship between both indoor and outdoor aquatic amenities and their specialization in terms of offerings related to the nine category of service.

It is worth noting that in the 2001 Aquatics Review, there was a special mention about competition uses. It suggested that although the City's indoor pools should accommodate swim club training, there was little need at that time for a more specialized competition pool, as UBC and other short and long course tanks were well positioned to host the few competitions that are held each year in the region. Since then, other pools in the region have been added or replaced with some additional capability to host aquatic sport competitions, the most significant examples of which are the new recently opened Grandview Pool in South Surrey, the UBC Aquatic Centre, and the Minoru Pool (containing 2-25 m pools) in Richmond slated to open early 2018.

Maximum Pool Capacity



1 It should be noted that this is not "legal capacity" which is specified in the Swim Pool Regulations under BC's Health Act, and which results in higher capacity than the formula above. In fact, while legal capacity divides pools into water less than and more than 1.5 m deep, it focuses on instantaneous capacity rather than annual capacity. The above definition of capacity relates to a typical public pool which must deliver a variety of categories of aquatic service in a typical 5,000 hours per year municipal operating format.

*square foot of water surface area is a standard unit of measurement for measuring capacity and revenues

FIGURE 6

Standard Capacity

INDOOR POOLS

The capacity of indoor pools to deliver many or all of the nine categories of aquatic services they are required to meet, relates to:

- The amount of surface area of the pool tank or tanks
- The depth of water in the pool tank or tanks
- Programming and scheduling of the tank or tanks (i.e. different uses can accommodate different totals in the same water surface area and depth)
- The total hours available each year

The indoor pools are available for use about 100 hours each of 49 weeks each year; for a total of approximately 4,900 hours. For such a facility, which attempts to balance all of the nine categories of aquatic service, experience has shown the total capacity for aquatic service can be measured by the formula noted at Figure 6.

OUTDOOR POOLS

Outdoor pools typically only operate about 100 days per year and operate for fewer hours each day. Also, they are subject to inclement weather which can reduce attendance. Therefore, the formula used to understand the capacity of outdoor pools is noted at Figure 6.

WADING POOLS, SPRAY PARKS + BEACHES

As with outdoor pools, use is much more subject to weather. It is much more difficult to determine the capacity of wading pools, spray parks, and beaches for the following reasons.

 Much more of each use is focused on the areas surrounding the aquatic amenity (e.g. beaches, deck and park space surrounding the spray areas) than in the water itself

- For beaches and spray parks, the concept of water surface area becomes much more nebulous
- There are no industry standards about how to calculate the capacity of these amenities

In addition, use is much more subject to weather. However, in the case of spray parks and beaches, understanding capacity of use may be slightly less relevant in determining their role in the future vision. Both play a very important role in providing aspects of the benefits, drivers and categories of aquatic services; however, their capacity of use is much less fixed than pools. While recommendations regarding targets for geographic locations for spray parks and potential amenities enhancements to beaches is considered in the strategy, capacity of use was not a key driver. Rather, recommendations were focused on ways to increase public enjoyment through improvements to the experiential aspects. In the case of beachgoing, the vision considers enhancements to the categories of aquatics (i.e. programs added and/or rentals opportunities increased) offered at beaches rather than on achieving a greater capacity of use.

In other words, while capacity of use formulas are particularly helpful when designing new indoor or outdoor pool facilities or when renovating existing facilities as they help to determine ideal size and design to ensure that the overall range of aquatic facilities can be expected to contribute to reaching an overall swim/capita target, they are less relevant in terms of beaches and spray parks.

Economics of Pool Operation

To frame a holistic understanding of the context within which aquatic facilities operate, some important economic aspects of the delivery of aquatic services also need to be understood and considered along with the drivers, categories of use, and modes of aquatic operation:

- The capital cost of an indoor pool, unlike most other forms of buildings, correlates more directly with the volume of the facility rather than the floor area. This is because, the deeper the water, the more air above the water is typically required. Both water depth and air height are very important and costly considerations when developing an indoor pool as both require large amounts of mechanical systems (water treatment systems which vary with the volume of water, and HVAC systems for handling highly humid air containing chemical substances) associated with those volumes. Two pools with the same floor area can have significantly different construction costs if one has deeper water and higher ceilings than the other.
- Operating costs for indoor public pools are closely related to regulations and largely fixed. About 70% of the operating costs of a typical pool are relatively or completely fixed (i.e. they don't vary significantly whether there is one person swimming or 40 people swimming in the pool enclosure). Operating costs are associated with a minimum required number of life guarding staff, water quality systems, management staff, insurance, utilities, and staffing a customer service control point—none of which vary directly with the volume of use.
- Generally, water shallower than 1.5 m deep is more economical for service delivery than deeper water. Legally, when calculating instantaneous capacity for use, shallow water allows three times more use per square meter of surface area. Also, shallower water is less expensive to operate and can usually be provided in an enclosure with

- a lower ceiling which also allows for reduced energy costs. Time lapse photography studies in pools typically show that shallow water areas of a pool tank are used about five times more intensely than deep water and correlates to use for fun, relaxation and socialization. Many patrons come to pools specifically for shallow water opportunities.
- Operating revenues are variable. In other words, if use increases by 10%, operating revenues go up roughly 10% as the revenue associated with swims in each category of aquatic service is largely constant on a per swim basis.

Because of the previous points, it is very important, from an economic and environmental sustainability point of view, to operate a pool as close to full capacity as is reasonably possible. A pool operating at a fraction of its total capacity has a high operating cost, a low operating revenue, and a very high net subsidy and energy consumption per swim. A pool operating close to its full capacity has a high operating cost, a high operating revenue, and a much lower net subsidy and energy consumption per swim. Another way of viewing this relationship is to acknowledge that every additional swim a pool is able to generate will trigger more operating revenue than operating cost and won't increase energy consumption proportionately.

This means that typically, from an economic perspective, pools should be sized to meet current and short term future needs, and not the needs of the very long term future, as "overbuilding" capacity in the short term to meet long term needs will likely result in operating subsidies per swim that are so high they collectively exceed the cost of adding to the existing pool or building another pool in the future when the community needs it.

Pools economics should also be considered from a social sustainability perspective, as touched on in the introductory sections and Section 3 of this report.

Summary of Planning Context

All of the above contextual factors (benefits and drivers of aquatic use, categories of service, modes of aquatic operation, and the geographic levels of pool supply) play an important role in the sizing and configuration of pool spaces and strategic planning to meet long term aquatic needs. In order to ensure the right kinds and amounts of aquatic spaces are built in the future, it is important to consider:

- The proportion of total aquatic use that will be generated in each of the three modes of operation.
- The proportion of total swims that will be generated in each of the nine categories of aquatic service.
- The total swims that result from the first two bullet points above translated into a set of aquatic spaces that will optimally respond to those needs and resist the temptation to "overbuild" spaces which won't be used for 10-20 years or more.
- While providing all core aquatic services, attempt to fill gaps in the supply left by other existing pools in the region and not duplicate service in categories which are more specialized and represent fewer swims.
- As many current and short term needs are met within a context of the least amount of volume of space.
- All pools will be operated as close to full capacity as is reasonably possible to avoid unnecessarily high subsidies per swim.
- When considering means to balance the previous points, strive to design facilities with a balance of water depths that maximize aquatic use (revenue), understanding that very shallow water and deep water offer limited opportunities for use compared with

waist-deep water, combined with leisure features, which provides the greatest revenue potential (refer to Figures 6 on the previous page).

- The potential role of beaches and ocean swimming in meeting aspects of aquatic use.
- The role that new and innovative aquatic service amenities may play in meeting desired outcomes for future aquatic use.

Key Insights

What we heard and learned in Phase 1



Introduction

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What kind of pools do we currently have?

The strategy works to ensure more equitable access to a range of experiences across Vancouver — accessible via public transport, car, bike, or walking.



Legend

Traditional

FIGURE 7

Indoor

Pool

Outdoor

Pool

Co-located

Aquatics

Introduction

As discussed in the introductory section if this report, the first phase of *VanSplash* included comprehensive reports regarding the current state of aquatics services in Vancouver, a precedent review looking at global aquatic trends, and a two-phase public engagement process.

This section of the report highlights the key insights from the *Current State Report, Precedent Report,* and the Phase 1 survey results of the *Public Engagement Report,* which intends to present the combined findings relating to the resulting recommendations outlined in the following section. The key insights presented in this section resulted in the draft recommendations for the five types of aquatic services: indoor pools, outdoor pools, beaches, wading pools and spray parks, and aquatic innovations. The draft recommendations, along with key insights from the Phase 1 reports, were presented to the public for feedback during the second phase of engagement.

For further information, refer to the appendices outlined in this Appendix section of this report, which include the above-mentioned Phase 1 reports.

Public Engagement

We heard from over <u>4500</u> people and held 5 stakeholder engagement sessions throughout the Phase 1 public consultation.

This is where they live:



Age:







Public Engagement (Phase 1)

The objectives of the public engagement for the Vancouver Aquatics Strategy were to inform, consult, and involve the community of Vancouver regarding the future and innovation of aquatic amenities. The goal was to:

- Solicit feedback on key functional issues and priorities related to the existing and potential future amenities.
- Create awareness of the project and the issues surrounding the renewal.
- Create a shared understanding of the different community's needs, desires and vision.

The engagement approach was comprised of a Phase 1 comprehensive survey and a series of focus group workshops that provided an opportunity to go into more detail in some areas, and to allow participants to provide more focused feedback.

The long answer survey questions focused on topics such as:

- What are the current aquatic experiences that people enjoy?
- What prevents people from using or enjoying aquatic amenities, both indoor and outdoor?
- What new innovative aquatic experiences do locals want to see in their communities?
- What activities do people enjoy doing at indoor pools, outdoor pools, and public beaches?

The results of the Phase 1 engagement shaped the draft recommendations presented in this report, and are presented in this section to both establish context and to illustrate correlations between what was heard and how the feedback is reflected in the proposed recommendations.



(4km) CITY-WIDE (DESTINATION)

Hillcrest Aquatic Centre, 2010

- Newest facility in VPB
- Greatest number of annual visits
- 50m, 8-lane main tank with a separate leisure tank

Vancouver Aquatic Centre, 1974

- High demand for diving, synchro, water polo and elite aquatic based training
- Within the area of highest expected population growth over the next 24 years
- While the pool capacity of VAC qualifies it as a city-wide pool, the range of amenities limits its current usage to community level, so it is shown throughout as a community pool
- 50m, 8-lane tank with connected dive tank and separate teach tank

Killarney, 2006

- One of the newest facilities in VPB
- Second greatest number of annual visits
- 25m, 6-lane tank with leisure tank

Kensington, 1979

- Currently operates cost effectively
- Warmer pool temperature
- 15m, 4-lane shallow tank

Britannia, 1974, renovated 1998

- Overall masterplan currently underway
- Significant service overlap with Templeton
- 25m, 6-lane main tank plus small leisure tank

Lord Byng, 1974

- Never renovated
- 25m, 6-lane main tank

Templeton, 1974

- Never renovated
- Service overlap with Britannia
- 25m, 6-lane main tank with separate teach tank

Renfrew, 1963, renovated 1970, 2005, 2010

- Third most well-used facility after Hillcrest and Killarney
- 25m, 6-lane tank plus shallow water tank

Kerrisdale, 1955, renovated 1996

• 30.5m, 6-lane tank

Indoor Pools

There are currently nine indoor public pools in Vancouver. Eight of the nine city pools are operated by the Vancouver Park Board and one, Britannia, is operated by a partnership of public agencies.

As Figure 9 shows:

There is reasonably good coverage of indoor pools in Vancouver, with the possible exception that:

- There is a small area in south central Vancouver that is not within the service delivery area of an indoor pool;
- There is a significant amount of overlap in service areas, with the most dramatic overlap being the area served by both Templeton and Britannia pools.

For further detail on each facility, refer to Chapter 3 of the Current State Report.



Indoor Pools

In 2012, Urban Futures, researchers in demographics and economics, completed the most rigorous population projection available as a basis for planning. According to that analysis the population is expected to grow by up to 15% over the next 25-years (see Figure 10), and is expected to age significantly with fewer net school aged children, particularly in the downtown core and the West End.

With an aging population, a change in swimming programming is anticipated, potentially resulting in an increased provision of therapeutic amenities to complement other aquatic offerings.

Work by the City of Vancouver shows that the growth referred to in the Urban Futures report will most likely be focused along a north/south spine that begins in the downtown core and proceeds south along the Cambie corridor as shown in Figure 10.



Indoor Pools

KEY INSIGHTS

- Hillcrest attracts visitors from across the city and often operates close to its designed capacity.
- The heavy usage of Hillcrest reflects how people travel further and 'skip' the neighbourhood pools to reach a facility with a greater diversity of aquatic offerings.
- However, the perception of overcrowding at Hillcrest is a deterrent for some users.
- Additional city-wide pools will more evenly distribute use across the city and will address overcrowding.
- New or renovated pools are the best utilized and most financially efficient (Renfrew, Killarney, Hillcrest). Indoor pools nearing the end of their lifespan are the least used, least efficient and require the most investment to operate.
- It is difficult to access swim lessons at newer, more popular pools.
- Overall, pools became more efficient between 2011 and 2014. The operating costs increased marginally, as did the operating revenues and the net deficit. However, since the use increased substantially, the net subsidy per swim decreased.


4km CITY-WIDE (DESTINATION)

Hillcrest Aquatic Centre, 2010

- Co-located with indoor pool
- Leisure pool
- Newest facility in VPB

Second Beach, 1995

- Located off seawall in high-traffic pedestrian and tourist area
- Lap and leisure pool
- Large pool deck area with minimal shading
- Second most popular outdoor pool in system

Maple Grove, 1995

- Quiet location within a park
- Leisure pool
- Large green space
- Popular venue for children's groups and family days

Kitsilano, 1979

- Located next to Kitsilano Beach
- Extremely long length, ideal for length swimming (137.5m)
- Located on cycling route, walking path, and tourist area
- Most visited outdoor pool

New Brighton, 1973

- Located within New Brighton park with expansive views to North Shore mountains and water
- Lap and leisure pool, mostly recreational use
- Limited green space with minimal shading at pool
- Limited parking

Outdoor Pools

The Park Board has five outdoor pools, as shown in Figure 12, offering a total of 2.4 million swims per year.

Although the number of outdoor pools in Vancouver is relatively small compared to some other urban centres in Canada (e.g. Montreal and Toronto), at least two of the Vancouver outdoor pools are quite large, and therefore the total capacity for swimming in public outdoor pools in Vancouver is at least as high as cities that have more pools. For example, the Kitsilano pool has the equivalent capacity as about fifteen regular 25m six lane pools.

For further detail on each facility, refer to Chapter 3 of the Current State Report.

Outdoor Pools



Outdoor Pools

KEY INSIGHTS

- Generally, different outdoor pools are optimized to provide different types of aquatic experiences. Vancouver's outdoor pools are destination pools, offering a range of experiences and drawing residents from across the city.
- The public engagement highlighted an interest in innovative facilities, such as outdoor naturally filtrated pools and a floating pool.
- The outdoor pools are not currently providing adequate changing facilities.
- Many of the outdoor pools are aging and require mechanical or pool upgrades.
- Concession stands and food services at all outdoor pools could be improved.
- Outdoor pools support multiple activities from lap swimming to leisure and play.
- Location for outdoor pools should be carefully considered as they compete with land with other park uses, many of which offer year round use.



Trout Lake Sunset Beach Third Beach Second Beach English Bay Locarno Beach Kitsilano Beach Jericho Beach Spanish Banks

LIFE GUARDED BEACHES

Beaches

The Vancouver Park Board manage 9 life guarded (from late May until early September annually) beach areas totaling approximately 18 linear km of beach area (shown in Figure 14). Eight are on the ocean and one is at Trout Lake, and amenities offered at each vary. Similar to outdoor pools, beaches in Vancouver currently play a very significant role in providing respite from heat and recreation and socializing. Beaches see a large proportion of their use focused not necessarily on patrons in the water, but on a desire to be near the water. Beaches also see many engaging in ocean play and swimming, as well as fitness uses on the water (kayaking, wind-surfing, boogie boarding) and at the edge of the water, such as skim boarding.





Beaches

KEY INSIGHTS

- Based on information collected by lifeguards in 2010, there were over 3.1 million users during guarding season over 1.0 million greater than the combined annual indoor and outdoor pool swims recorded for 2010.
- Highest beach use was seen at Kitsilano and English Bay beaches.
- Beaches play a significant role in meeting the 25-Year Vision for the future of aquatics in Vancouver.
- There are opportunities for beaches to play a greater role in meeting service needs in the nine categories of aquatics, with potential to increase their role in skill development, fitness and special events.



SPRAY PARKS

- 1. Chaldecott Park
- 2. Connaught Park
- 3. CRAB Park at Portside
- 4. Garden Park
- 5. Grandview Park
- 6. Harbour Green Park
- 7. Hastings Community Park
- 8. Kitsilano Beach Park
- 9. MacLean Park
- 10. Norquay Park
- 11. Oak Park
- 12. Pandora Park
- 13. Prince Edward Park
- 14. Stanley Park (Lumberman's Arch)
- 15. **Granville Island** *not operated by the VPB

WADING POOLS

- 1. Balaclava Park
- 2. Bobolink Park
- 3. Brewers Park
- 4. Burrard View Park
- 5. Clinton Park
- 6. Collingwood Park
- 7. Douglas Park
- 8. Gray's Park
- 9. Renfrew Community Park
- 10. Robson Park
- 11. Ross Park
- 12. Slocan Park
- 13. Sunrise Park
- 14. Trimble Park
- 15. Woodland Park

Wading Pools + Spray Parks

Fifteen spray parks are licensed to operate in Vancouver - fourteen are operated by the Vancouver Park Board and one by the Community Centre at Granville Island. See Figure 16 for a map of all wading pools and spray parks in the City of Vancouver.

The VPB currently has, in its inventory, 15 wading pools, largely constructed in the 1960s and 1970s. They are required to be licensed as pool features under the Health Act regulations and need to be staffed. Wading pools are gradually being phased out in Vancouver, as they are in many municipalities across Western Canada, in favour of spray parks. This is due to revisions to the Health Act regulations that render the wading pools non-compliant.

Both wading pools and spray parks play a role in providing an introduction, and in some cases a 'first touch' water experience for young children. However, Vancouver's fill and draw wading pools are aging, and do not meet current Health Act standards. Additional shortcomings for existing wading pools are that they do not provide universal access, and must be staffed. The daily maintenance is water intensive and wading pool operation is costly as it requires staff for maintenance and supervised operation to meet Health Act requirements.

Spray parks, alternatively, offer a similar introduction to water, but offer a greater range and diversity of uses, do not require full-time staff to operate, and have an extended usage period as they can be used for more hours of the day and can be access year round (no fences or gates) during the off-season as 'terrain parks' and play spaces when water features are no longer operating. Spray parks also tend to appeal to a greater range of users, and are more socially as well as physically inclusive.

Wading Pools + Spray Parks

What is working

- Wading pools and spray parks provide an introduction to water.
- Spray parks offer a greater range of use and accessibility, greater level of safety and are more socially-inclusive.
- Spray parks can be activated as play areas outside of summer, and do not need to be supervised, extending their use to more hours of a day.
- Spray parks can be designed as public space attractions.
- Spray parks do not need to be supervised.

Top things we heard

Spray parks are more dynamic and more fun than a wading pool.

Water needs to be activated for more hours of the day and for more days of the week; spray parks provide this flexibility.

What is not working

- Existing wading pools do not meet Health Act regulations, compelling significant conversion or removal.
- Current wading pools must be filled daily with potable water.
- Current wading pools do not provide universal access.
- Wading pools must be supervised.



Wading Pools + Spray Parks

KEY INSIGHTS

- Spray parks provide more opportunities to serve a broader range of ages and needs, and provide much greater flexibility in meeting activity needs than wading pools.
- Spray parks are more inclusive, offering access to a range of people, from very young children to adults of varying physical abilities, to play, socialize, and seek respite from summer heat together.
- Spray parks also offer the possibility of year-round use, as the topography and some of the features offer opportunities for imaginative play even when the water is not running.
- Spray parks are more economical to run as they do not require staffing to operate.
- During the operating season, spray parks can be used during all park operating hours, while wading pools, which must be staffed, are only in operation during limited hours.

Aquatic Innovation Definitions



FLOATING POOL

A Floating Pool creates a sanitary swimming environment within a body of water that is often too polluted to permit safe swimming practices. Situating a floating pool in such an area would offer an alternate experience and enhance the enjoyment of the water.



NATURAL POOLS

Natural Swimming Pools are defined as pools that use naturally occurring biological water filtration and treatment methods to provide pure and clean bathing facilities that mirror natural bodies of water, without the use of chemical treatment.



URBAN SPLASH PARK

Spray park features combined with public art and/or urban water features, creating a more 'mature' environment that appeals to a wider age range of people, often in highly prominent places. They are free and can be enjoyed by a larger cross section of users in warmer months, while still serving a public function (art), in colder months. They offer respite in a high density urban environment during hot days, but also offer a high degree of 'spectacle' and community building: there are often ample opportunities for people watching and social gathering, and a lot of the settings attract residents but are also tourist draws due to their stunning settings and opportunities for photo-ops.



OCEAN PLAY

Water play structures made of inflatable elements are aquatic playgrounds that can be located at existing beaches. The various elements can include slides, wheels, and trampolines. Easily arranged to create obstacle courses, these structures provide active waterpark experiences suitable for a wide age range.



URBAN BEACH

Urban beaches simulate beach environments within urban settings, often taking advantage of nearby water features. With the introduction of sand, beach umbrellas, and seating, and the insertion of an urban beach offers a surprising, alternative space to relax within the cityscape in areas away from natural bodies of water.

The installation of urban beaches increases the equity of beach experience in key locations of the city.



HARBOUR DECK

These urban swimming structures extend the urban landscape into the water, encouraging city dwellers to interact and connect with the water that surrounds their cities. These public swimming holes, through extensions to the public promenade, docks or the seawall, offer an urban harbor landscape of piers, ramps, cliffs, playgrounds and pontoons, completing the transition from land to water and making it possible to go for a swim in the middle of the city.

Harbour decks place an emphasis on public gathering, with areas for seating, sunning, socializing and taking in the spectacle and the activity are as important, if not more important, than the areas dedicated for fitness and leisure swimming, and diving platforms.



FLOATING SAUNA

In many cultures, saunas play an important role as a part of daily culture, and in some cases connection to nature and the outdoors. Floating saunas are water-based or water's -edge saunas that provide a sauna experience as part of a larger aquatic wellness experience that could be related to ocean swimming, or associated with outdoor or indoor swimming facilities.

Aquatic Innovations

As part of the 2017 Vancouver Aquatics Strategy, a global precedent review was carried out of current trends around the world related to aquatic experiences. The questions asked as part of this research were:

- What are the latest trends in aquatic experiences around the world?
- What new specialty pool typologies are emerging?
- What are the current best practices and how do we see them being applied in new aquatic forms in Vancouver's context?

KEY INSIGHTS

- In addition to traditional indoor and outdoor pools, there has been a recent rise in aquatic experiences that do not fit the traditional model of a user-pay aquatic facility focused on fitness and leisure swimming.
- Globally, there is a shift in aquatic services to include a broader range of water based experiences that focus on social gathering, community building, health, wellness, joy, and a renewed connection to nature, in many cases through no-cost entry facilities.

Recommendations for Service Delivery

3

Introduction

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Vision + Principles

Vision

Deliver a wide range of aquatic experiences for residents and visitors that support Vancouver as a highly-livable, world-class coastal city.

Continue to increase

annual swims per capita.

Principles

Recognize that water is only one component of the experience.

Expand the definition of 'aquatics' to include beaches, wading pools, spray parks and new innovative aquatic experiences.

Enhance social inclusion through aquatic experiences.

> Support community and personal well-being.

Goals

Accommodate Vancouver's growing and aging population.

Provide a wide range of vibrant and engaging aquatic experiences.

> **Provide aquatic experiences** that are accessible to all.

Promote and encourage 5 active living through aquatics.

Provide flexible and

functional facilities.

Establish sustainability targets for aquatics.

0

Increase connection to nature in all aspects of aquatics.

Introduction

Based on the findings presented in the *Current State Report*, *Precedent Report*, and *Public Engagement Report*, as well as building directly on the 25-year vision, principles and goals, this section of the report presents the proposed recommendations and 10-year implementation plan.

As discussed in the introductory section of this report, the *VanSplash* recommendations must fit within a broader Vancouver Board of Parks and Recreation mandate, supporting the overall *Strategic Plan, Sport Strategy*, and Park Board policies including *Parks and Recreation for All* as well as ongoing City-wide planning projects and objectives such as the *Greenest City Action Plan* and the *Healthy City Strategy*.

The recommendations in this section reflect the findings presented in the *Public Engagement Report*, and reflect the findings and feedback heard in the first phase of engagement which solicited feedback regarding subjects such: as current aquatic services people enjoy; barriers preventing users from accessing or enjoying aquatic amenities; activities people enjoy at indoor pools, outdoor pools, and public beaches; and what types of new innovative aquatic experiences locals want to see in their communities. The draft recommendations were modified to reflect the feedback we heard during the second phase of engagement.

The primary objective of the Phase 2 public engagement was to return to the public following the analysis of Phase 1, to share what we heard and learned, as well as share emerging draft recommendations for feedback before finalizing the strategy. The survey had over 1600 respondents. The only inconclusive results were regarding the support of indoor pool recommendations, which showed 34% of phase 2 respondents not in support. The majority of indoor pool recommendations were not significantly modified because we suspect the non-supporting responses were directly related to the considered decommissioning of select indoor pools (Lord Byng and Templeton) as over a quarter of total written comments concerned this.

The recommendations are intended to enhance and support a number of current initiatives including the *Parks and Recreation Masterplan (VanPlay),* the *Non-Motorized Boating Strategy (On Water)*, and the Northeast False Creek Redevelopment, as well as consider current Park Board planning initiatives. As noted in the introduction and shown in the vision and principles, *VanSplash* established a broader definition of success in aquatics, and was tasked with widening success measures of aquatic services beyond swims per capita to include social inclusivity, social engagement, health and well-being, connection to nature, and vibrant experiences.

While the definition of success was broadened, the initial key metric for success – swims per capita, was still a key driver for the work of *VanSplash*. The *2001 Aquatic Study* established a swims per capita recommendation target of 4.0. The *Current State Report* notes an increase in swims per capita to reach 3.4 after the implementation of the *2001 Aquatic Study* – a significant increase from the swims per capita rate prior to 2001, which was estimated at 2.4.

The 25-year vision sets a target of 5.0 swims per capita. However, recognizing that full pools can be perceived by some as over-crowded, the strategy supports a capacity of between 5.0 and 6.0 swims per capita. As context for this target, urban centres generally see a swim per capita rate of between 2.0 and 4.0, with smaller communities achieving higher swims per capita of closer to 7.0-8.0.



Indoor Pools

INDOOR POOL RECOMMENDATIONS

Recommendations for indoor pools focused holistically on the larger 25-year vision, with a particular emphasis on: continuing the renewal of indoor facilities reaching the end of their functional lifespan; increasing the capacity of the system to accommodate anticipated population growth and to achieve the renewed 5 swims per capita target; and providing a balanced range of aquatic experiences throughout the system.

The overall recommendations for changes to the indoor pool service offerings are summarized in Figure 20 and 21. In addition to the broader over arching recommendations presented on page 56 the following are more detailed recommendations and supporting rationale for additions and renewals to the current indoor pool service offering:

Replace Britannia neighbourhood pool with a new Community-plus¹ scale pool on the Britannia site. This work should be carried out as part of the current overall masterplan work and, as with all recommendations for new and replacement aquatic facilities, the particular amenities and balance of aquatic offerings should be determined in consultation with the community and as part of the VPB's vision to provide a broad and balanced mix of aquatic services.

Once the Britannia Community-plus pool is fully operational, engage with pool users, community members, and key stakeholders to determine the impact of the new Britannia Pool on Templeton Pool.

Provide a new City-wide destination pool with a sport-training focus, at Connaught Park as part of a future arena and/or community centre renewal. This proposed facility would replace and improve the current sport-training capacity of the Vancouver Aquatic Centre, and would consider potential for hosting of competitions to a level that the site can accommodate as part of the detailed planning. The location is near the proposed Arbutus station of the Broadway subway line in an area of anticipated growth nearby the Arbutus Corridor. As noted above, community consultation and broader VPB service delivery objectives would be considered in the detailed planning and delivery of this proposed new facility, along with a detailed site study to determine the capacity that the site can accommodate. Regional distribution of other competition and training facilities must also be considered at the time of facility planning.

A test-fit exercise was undertaken during the development of this strategy to test the fit of a sport-training focused aquatic facility located at Connaught Park. Conceptual site plans and basic massing determined the feasibility of accommodating this scale of pool along with an ice arena, community centre, childcare centre, and associated parking with in a principle of no net loss of park space.

Once the Connaught pool is fully operational, engage with pool users, community members, and key stakeholders to determine the impacts of the new Connaught Pool on Lord Byng Pool.

Replace the Vancouver Aquatic Centre with a new City-wide destination pool with a health and wellness focus, with co-located outdoor aquatic amenities. The Vancouver Aquatic Centre (VAC) has almost reached the end of its functional lifespan and does not meet current seismic requirements. This facility should be replaced as soon as the sporttraining and hosting capacity of the current facility are operating out of the replacement sport-focused City-wide destination pool (at Connaught Park). Given the projected population growth, and the expectation that the demographic will shift towards older adults in the community surrounding the VAC, planning of this facility should consider greater emphasis on therapeutic and wellness use, with warmer water tanks in

1 Note that community-plus refers to a facility designed between the capacity of a City-wide pool and a Community scale pool.



Indoor Pools Recommendations



Move away from a predominently neighbourhood scale pool system and deliver a greater diversity of swimming experiences at larger, community and destination scale facilities.



2 Where feasible, co-locate outdoor pools with indoor pools to offer a greater range of aquatic experiences at each facility and to maximize operational efficiencies.



3 Decomission existing stand-alone whirlpools in community centres which have safety and operational challenges.

INDOOR POOL RECOMMENDATIONS (CONTINUED)

addition to lane swimming. In consideration of the spectacular siting along the beach, the replacement facility has the opportunity to take advantage of the views, access to nature, and provide year round outdoor amenities adjacent to the pool deck, potentially in the form of a hot pool and/or sauna and steam (see also Innovation recommendations on page 69).

Replace Kerrisdale Pool with a new Community scale pool, as part of a future Community Centre and/or arena renewal to take advantage of co-location synergies including energy savings, operational efficiencies, and the community interest in larger facilities offering a diverse range of amenities and services in one location.

Renovate Kensington Pool to enhance accessibility and increase opportunities for adaptive and therapeutic swimming.

Continue to consider **building partnerships** with other agencies to gain opportunities for public use of non-park board aquatic facilities.

The recommended additional and replacement pools would bring the capacity of pools in Vancouver in alignment to support the new target swims per capita of up to 6.0.

The proposed sequencing for recommended new and replacement indoor pools is shown on the following page.

WHAT WE HEARD IN PHASE 2

- 82% chose new indoor pools or upgrades to indoor pools in their top 5 recommendations.
- 55% said they think the recommendations for indoor pools respond well to what we heard and learned in Phase 1. 34% said they think they do not respond well, and the rest were unsure. *
- 35% said they think the recommendations will improve indoor aquatic experiences in Vancouver. 33% were unsure and the rest said they think they will not improve experiences. *

* We suspect the inconclusive results are directly related to the considered decommissioning of Lord Byng and Templeton indoor pools, as over a quarter of written comments concerned this.





Outdoor Pools

OUTDOOR POOL RECOMMENDATIONS

As with indoor pools, recommendations for outdoor pools are based on achieving the larger 25-year vision. It was recognized during this study that each of our existing outdoor stand-alone facilities are distinctive Citywide destination pools. It was also clear from the engagement that they are a much-loved component of the current aquatic system and they play a key role in the broader social targets for the renewed aquatic strategy. The recommendations for outdoor pools therefore place a particular emphasis on: renewal of outdoor pool facilities that are considered jewels in the system but need investment to maintain and extend their functional lifespan; and improving the geographic distribution of outdoor pools while providing a balanced range of aquatic experiences throughout the system.

The 2001 Aquatic Services Review recommended that neighbourhood stand-alone outdoor pools be phased out and future outdoor pools be co-located with indoor pools. The benefits of a co-located indoor and outdoor pool include: a high number of swim opportunities and swim participants, a lower cost per swim, an extended outdoor season, shared staff (ie: life guarding, maintenance and customer service), shared operation systems (ie: admissions, marketing, program development), shared infrastructure (ie: facility change rooms and shared mechanical systems) and access to more services, amenities, and features. VanSplash has expanded the scope of study to include non-traditional aquatics, which include innovative aquatic services such as a naturally filtrated City-wide destination outdoor pool. Precedents of these kinds of innovation demonstrate that innovative aquatic services attract enough visits to warrant a stand-alone amenity.

Broad recommendations are summarized in Figure 22. The following are more detailed recommendations and supporting rationale:

Revitalize existing outdoor pools. Each of the existing outdoor pools require investment to extend their lifespan and to provide users with supporting amenities that meet current best-practices and can support increasing usage. Specific upgrades proposed are:

- Improve or replace changing facilities at each outdoor pool to meet current City and VPB policies to provide safe, accessible, and inclusive environments for all, to support current and future usage demands, and to improve effectiveness of on-going maintenance.
- Improve food and beverage service offerings. A significant usage of outdoor pools is related to socializing, and providing food services that are on the pool deck, convenient and affordable, and allow patrons to extend the time spent in the facility are likely to result in longer stay-times and increased socialization. (Addressed through VPB Concession Strategy)
- Improve or replace mechanical equipment and pool basins where required. In order to keep these facilities long-term in investment into some of the pool systems is necessary to prevent more significant costs in the future.
- Improve new spray features to increase the diversity of aquatic amenities at each outdoor pool and offer a wider appeal to a broader age range.
- Improve deck areas to enhance quality of experience. Offer shaded areas, and consider increasing the deck area at particular outdoor pools (New Brighton) that do not include green space to accommodate sunning and relaxation. Consider improving wind protection around deck areas.

As a first step, undertake a facility assessment and detailed implementation plan.



Outdoor Pools Recommendations



Continue to invest in the existing outdoor pools to keep them as unique city-wide (destination) facilities within Vancouver.



4

2 Prioritize locating new outdoor pools to fill current service area gaps in southcentral and south-east Vancouver.



3

Provide a balance of recreation, fun, socializing and fitness, through a range of outdoor pool facilities and experiences.



Consider an outdoor pool or spray feature with every new indoor pool facility where possible with site constraints and site planning objectives.

OUTDOOR POOL RECOMMENDATIONS (CONTINUED)

Provide a new co-located outdoor pool in South Vancouver, considering Killarney or Marpole Community Centres as possible locations. Refer to Appendix 2 for details in location comparison.

Provide a new City-wide naturally filtered destination outdoor pool in South Vancouver, i.e. non-chlorinated. Continue to build on the successful strategy of providing City-wide destination pools that each offer a unique experience. While the majority of Vancouver is geographically well served by current outdoor pools, there is a service gap in the outdoor swimming opportunities, beaches, and natural swimming experiences in South Vancouver along the Fraser River. Naturally filtered pools are anticipated to be of increasing interest to aquatic users concerned about the potential health impacts of chlorine to both users and operators. There are hundreds of precedent facilities in Europe, and the first in North America opened recently in Minnesota. However, implementing a natural pool adjacent to the Fraser River would require a site and regulatory revision, making this recommendation a longer term idea.

WHAT WE HEARD IN PHASE 2

- 71% said they think the recommendations for outdoor pools respond well to what we heard and learned in Phase 1.
- 59% chose new outdoor pools or upgrades to outdoor pools in their top 5 recommendations.
- 47% said they think the recommendations will improve outdoor aquatic experiences in Vancouver. 14% said they think they will not improve experiences and the rest were unsure.



Beaches Recommendations

Consider activating or enhancing the range of aquatic experiences offered at beaches, i.e. temporary water play.

2 Find a better way to collect information on how many people use our beaches and how they use them.



Beaches

BEACHES RECOMMENDATIONS

As shown through the public engagement process, Vancouver beaches are very well used by locals and tourists alike, are much-loved by locals for the range of aquatic services they offer, and score very highly in terms of the broader social impact targets that are part of the 25-year strategy for aquatics in Vancouver. However, it was noted in the *Current State Report* that the range of data on beach usage and operation costs were not as robustly tracked as for pools (and that more focused data collection could help to inform possible future improvements).

The recommendations for beaches place a particular emphasis on building on the current success of our beaches, and are as follows:

Invest in maintaining and enhancing existing beaches.

- Upgrade or replace changing facilities at beaches to meet current City and VPB policies to provide safe and inclusive environments for all, to support current and future usage demands, and to improve effectiveness of on-going maintenance of change facilities.
- Upgrade food and beverage service offerings to meet current user expectations and to support social and community building targets through shared food experiences and increased stay times. The VPB has undertaken a separate Concession Strategy that will provide recommendations regarding improvements to food and beverage offerings.
- Provide opportunities for shade.

Consider enhancing the diversity of experiences offered at/from the beach including ocean play and floating structures (see also Innovations Recommendations) and ocean swimming lessons.

Invest in swimming improvements at Trout Lake. As desire for natural swimming continues to rise, look at ways to provide an improved outdoor swimming experience at Trout Lake, potentially through improvements to water quality, beach quality and change facilities and concessions. Refer to draft *John Hendry Park Master Plan* for further details.

WHAT WE HEARD IN PHASE 2

- 75% said they think the recommendations for beaches respond well to what we heard and learned in Phase 1.
- 44% said they think the recommendations will improve beach experiences in Vancouver. 10% said they think it will not improve and the rest were unsure.
- 28% chose upgrades to beaches in their top 5 recommendations.

Wading Pools + Spray Parks

WADING POOLS AND SPRAY PARKS RECOMMENDATIONS

The recommendations for wading pools and spray parks are as follows:

To facilitate the emerging spray park system, continue to convert wading pools to spray parks or decommission them, pending locational criteria and consultation with communities.

Provide destination spray parks at destination and highly urban parks serving large populations.

Provide neighbourhood spray parks based on greatest social and geographic need and through consultation with local communities.

Consider co-locating accessible* spray parks with indoor or outdoor pools, and/or with washrooms and community centres.

Where possible, **design spray parks in a way that water can be recycled for park use**, i.e. adjacent irrigation or water features.

Distribute spray parks more evenly throughout the City corresponding to population distribution and density.

*No perimeter fencing or admission required.

WHAT WE HEARD IN PHASE 2

- 46% said they think the recommendations will improve spray parks + wading pool experiences in Vancouver. 9% said they think it will not improve and the rest were unsure.
- 69% said the recommendations for spray parks + wading pools responded well to what we heard and learned in Phase 1.



Innovation

"Non-traditional" aquatic amenities that add opportunities for recreation, fun and relaxation.



Build a harbour deck for

improved access to our

inlet.



anent 2 Provide wellness amenities, connected with existing and future pools.



Provide play structures in the ocean at existing beaches.

Build a naturally-filtered outdoor pool for better connection to nature.

pool or hot tub.

Add outdoor hot tubs to

outdoor pools that aren't

co-located with an indoor

3

Build destination spray parks for fun and cooling aquatic experiences in urban areas.

Corp.

9 Assess feasibility of a floating pool in False Creek.



5 Create urban beaches for relaxation and play.



Aquatic Innovations

INNOVATION RECOMMENDATIONS

Global aquatic trends are showing a broad range of amenities and services that extend beyond the traditional indoor or outdoor pool. As learned through the public engagement process, Vancouver residents are showing a keen interest in non-traditional aquatic services providing a range of innovative experiences. The goal of aquatic innovations is to support the enrichment of Vancouver's aquatic services to offer fun, spectacle, diverse, and vibrant experiences.

The recommendations for aquatic innovations places emphasis on enhancing the overall service offering and complement the more fixed aquatic infrastructure, and are as follows:

Provide a combination of temporary (ie: urban beaches) and permanent aquatic innovations to provide new and more equitably distributed innovative services around the City.

Provide wellness amenities connected with existing and future pools such as saunas, pools of varying temperatures, and relaxation spaces.

Add outdoor hot tubs at larger destination outdoor pools that aren't co-located with an indoor pool or hot tub to offer a greater range of aquatic experiences at outdoor pools, including socializing and relaxation.

Build destination spray parks for fun and cooling aquatic experiences in urban areas such as water play structures combined with public art and urban water features, creating a more 'mature' environment that appeals to a wider range of people. (See also Wading Pools + Spray Parks Recommendations.)

Build a harbour deck for improved access to our inlet.

Provide play structures in the ocean at existing beaches such as installations that deliver an exhilarating experience, provide excitement, and in some cases deliver a high level of fitness.

Build a naturally-filtrated outdoor pool for better connection to nature and an enhanced and unique aquatic experience (see also Outdoor Pools recommendations).

Assess feasibility of a floating pool in False Creek to provide a treated and filtered pool in an ocean-swimming setting.

Consider installing temporary urban beaches to provide a beach experience in more urban settings and to offer more equitable access and geographic spread of the sun and social aspects.

WHAT WE HEARD IN PHASE 2

- 67% said they think the recommendations for aquatic innovations respond well to what we heard and learned in Phase 1.
- 42% said they think the recommendations will improve innovative aquatic experiences in Vancouver. 14% said they think it will not improve and the rest were unsure.
- The top 3 innovations were a Natural Outdoor Pool, a Harbour Deck, and a Floating Pool in False Creek.

1 Huseyin Naci; John P. A. Ioannidis, (June 11, 2015). "Evaluation of Wellness Determinants and Interventions by Citizen Scientists". JAMA. 314: 121.doi:10.1001/jama.2015.6160



25-year Vision and 10-year **Implementation Plan**

The range of proposed new and replacement facilities included in the Recommendations are illustrated in Figure 27. While there are complex factors that impact the potential sequencing of the range of service improvements recommended in the 25-year vision, the time line below is an illustration of the proposed 10-year implementation plan sequencing of the projects included in the recommendations. Other recommendations may be achievable in 10-years. The 10-year implementation plan is pending capital planning processes.



*Timing TBD depending on iocation
Appendices

- 1 Capital Costs 75
- 2 Co-located Outdoor Pool in South Vancouver Location Comparison 77
- 3 Current State Report
- 4 Precedent Report
- 5 Public Engagement Report

Capital Costs: 10-year Implementation Plan

Appendix 1

RECOMMENDATION	PROJECT TYPE	COST ESTIMATE*
INDOOR POOLS		
Britannia ***	Rebuild (Community-plus)	\$35,000,000
Connaught ***	New Build (City-wide destination)	\$75,000,000
VAC ***	Rebuild (City-wide destination)	\$70,000,000
Kensington (Neighbourhood)	Upgrades, accessibility	\$2-4,000,000
Kerrisdale	Community Centre and Arena Site Planning and Needs Assessment	\$400,000**
OUTDOOR POOLS		
South Vancouver Pool	New Build, Co-located	\$6-9,000,000
Hillcrest****	Upgrade (sun/wind protection, hot tub, change rooms)	\$200,000**
Kitsilano****	Upgrade (sun/wind protection, hot tub, spray features, change rooms, plumbing, fence)	\$12,000,000
Maple Grove****	Upgrade (sun/wind protection, spray features, change rooms, plumbing, fence)	\$2,000,000
New Brighton****	Upgrade (sun/wind protection, hot tub, spray features, plumbing, fence, change rooms)	\$8,000,000
Second Beach****	Upgrade (sun/wind protection, hot tub, spray features, change rooms)	\$5,000,000
INNOVATIONS, other Innovation costs TBD		
Urban Splash Park	New Build	\$1-3,000,000
Ocean Play	New Build	\$300,000**
Urban Beach	New Build	\$20,000**
Harbour Deck	New Build	\$9,500,000
SPRAY PARKS + WADING POOLS		
Small spray park, per spray park	New Build	\$500,000**
Wading pool conversion to lawn, per pool	Decommission	\$50,000**
BEACHES		
Standard change room	New Build	\$2,300,000
Enriched change room	New Build	\$3,900,000

These are Class D cost estimates only.

* Estimated cost rounded to nearest \$1,000,000, except where noted or where over \$30,000,000 and have been rounded to the nearest \$5,000,000.

** Estimated cost rounded to nearest \$10,000. *** Project undertaken as part of a larger community centre/arena renewal. These costs include aquatics only. **** Scope to be finalized in detailed implementation plan. Cost estimates include design and construction contingencies. Exclusions: LEED certification; GST; off-site works; unforeseen ground conditions; furniture, finishing and equipment; removal of contaminated soil or hazardous materials abatement (if any); decanting and moving (if any).

Co-located Outdoor Pool in South Vancouver Location Comparison

Appendix 2





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